

**XX248-10-01**

## **V992D-N4 Network Dome Camera**

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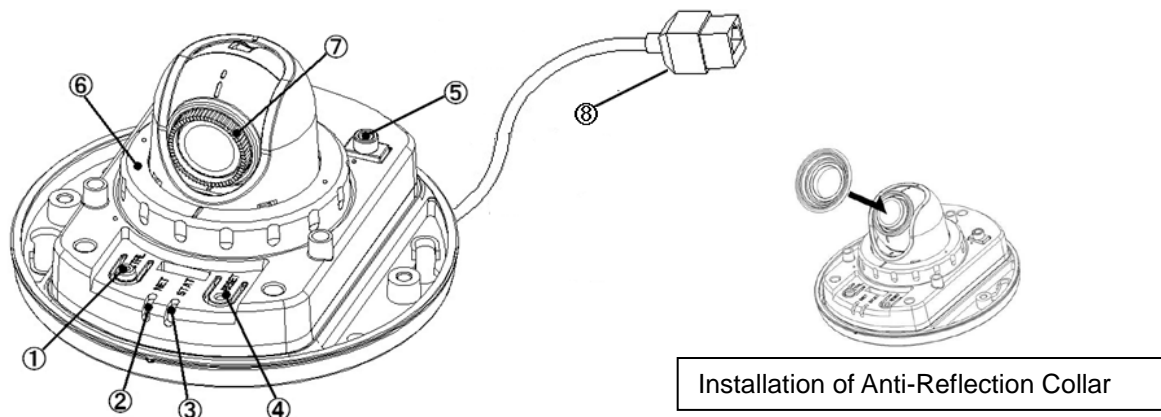
# 1. Product Features

The V992D-N4 is a high performance H.264 network camera dome, designed for demanding security installations. It delivers crisp, clear images, disclosing every detail, thanks to its top quality megapixel progressive CMOS sensor and advanced image processing.

Supported by the industry's largest base of video management software, the V992D-N4 provides the perfect solution for securing bank offices, airports and other facilities, and for traffic surveillance, over IP based networks.

The optimal Power over Ethernet (IEEE 802.3af) support power to the camera to be delivered via the network, eliminating the need for a power outlet and reducing installation costs. Steady power could be guaranteed with a central Uninterruptible Power Supply (UPS).

The V992D-N4 offers a comprehensive set of network security and management features. This includes support for port based network control (IEEE802.1X), which allows the camera to be connected to a network secured with this control, and HTTPS encryption, which provides a secure channel between camera and application. It also enables authentication of the video source. Video products are efficiently managed with the powerful Camera Management tool, which is provided on the Installation CD which comes with each V992D-N4 camera dome.



## 1. Control Button

Control button has two functions.

- 1) Control Video output format either NTSC or PAL.
- 2) Factory Default (Keep hold more than 10 seconds)

## 2. Network LED

### 3. Status LED

<i>LED</i>	<i>Color</i>	<i>Indication</i>	<i>System Status</i>
Network	Blue	On	Power On.
		Flash	Network is active
Status	Red	Flash	Firmware Upload in progress HW Factory Default in progress
	Green	Flash	Booting up
		On	Normal

### 4. Reset Button

Press this button to reset the camera.

### 5. Video output for service monitor

The analog video output is available when installation mode is set to ON. Use accessory cable to video output.

### 6. Lock nut

To set lens position, loosen the nut and adjust the position.

### 7. Focus adjustment

Use focus adjust ring for lens adjustment.

### 8. Network (RJ-45 PoE required)

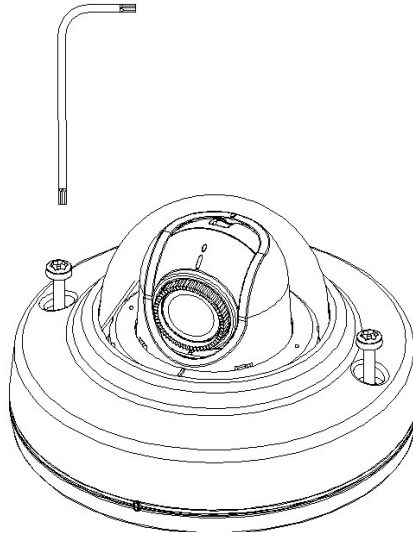
The V992D-N4 connects to the network via a standard network cable, and automatically detects the speed of the local network segment (10BaseT/100BaseTX Ethernet). This socket must be used to power the V992D-N4 via Power over Ethernet (PoE). The camera auto-senses the correct power level when using a PoE (Class 2) switch, router or injector.

## 2. Installation

### 2.1 Installation Preparation

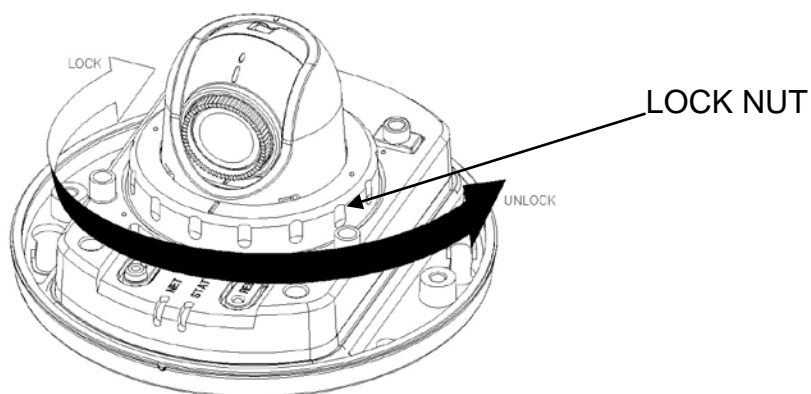
#### 1) Remove Dome Cover

- Loosen two Hexlobe (T20) screws with supplied L-key wrench and remove dome cover.



#### 2) Lock Nut

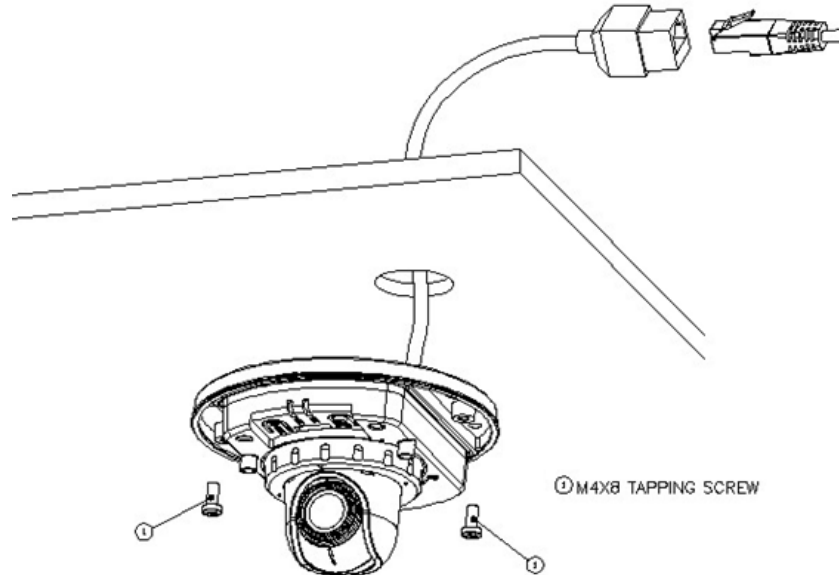
To change the lens direction, turn the lock nut counter-clockwise to unlock the nut and position the lens. Tighten lock nut when lens position is set.



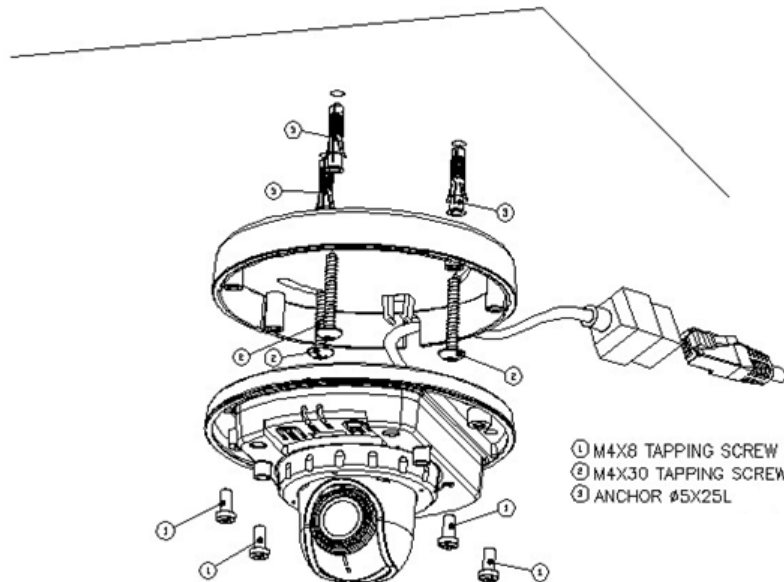
### 3) Mounting to a ceiling/wall

#### 3-1) CEILING FLUSH MOUNT

Remove bottom plate.



#### 3-2) SURFACE MOUNT



### 4) Lens Adjustment

Adjust the lens position (as previously described) and set focus with focus adjustment ring. After setting the lens direction, lock the lock nut.

### 5) Attach Dome Cover

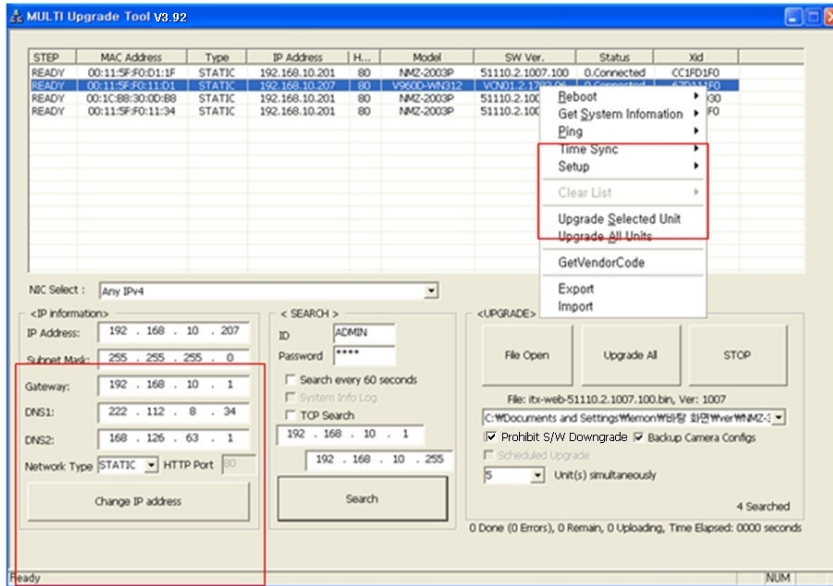
Attach dome cover and tighten the two Hexlobe (T20) screws with supplied L-key wrench.

## 2.2 Assign IP address

The default setting of the camera is set “DHCP” to ON. If you have a DHCP server on your network and UPnP function enabled on your PC you can find the network camera in “My network”.

If a DHCP server is not available on your network, assign IP address by the following process:  
Execute Multi-Upgrade Tool (from the Installation CD). It will search cameras on the network automatically.

- 1) After the list of detected devices appears, select the camera you are trying to configure.



- 2) Select the Network type as Static or DHCP. If Static is selected, enter all of the network information for your camera.
- 3) Select the “Change IP Address” button. The message “Do you want to change IP address?” will display; select “Yes” from the pop-up window.
- 4) Check the Type as Static or DHCP from the list.

When you double click the camera within the list, the default web browser (Internet Explorer or compatible equivalent) will open and automatically connect to the camera.

The V992D-N4 can be accessed with most standard operating systems and browsers. The recommended browser is Internet Explorer® 7 and above for Windows®.

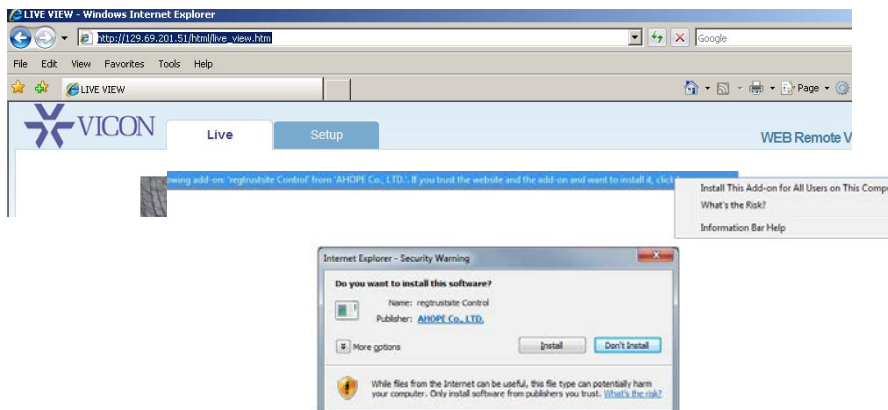
## 2.3 Access from a browser

1. Start a browser (i.e., Internet Explorer)
2. Enter the IP address or host name of the camera in the Location/Address field of your browser. Press Enter.
3. Login dialog will appear when the camera is accessed for the first time.
4. The default user name is **ADMIN**, and password is **1234**.



5. The camera's Live View page is now displayed in your browser.

When you first access the camera you will be asked to download and install an Active X control from the camera to display a Live image.







*NOTE: The layout of the live view page in the camera may have been customized to meet specific requirements. Consequently, some of the examples and functions featured here may differ from those displayed on your own Live View page.*

## 2.4 Accessing the camera from the Internet

Once installed, the camera is accessible on the local network (LAN). Configure the router/firewall to allow incoming data traffic to access the camera from the Internet. For security reasons this is usually done on a specific port. Please refer to the documentation for router/firewall for further instructions.

## 2.5 Adjusting the Image and Focus

To adjust the position of the lens:

1. Open the **Live View** page in your web browser.
  - Select the **Setup** tab, and open the **Installation** page.
  - Select the 'Video Format'.
2. Connect analog monitor to the VIDEO OUT (BNC) on the cable.
  - Adjust lens position and set FOCUS with supplied focus adjust ring.

## 3. Live View



Digital Zoom



Snap Shot



Full Screen



Video Stream change: First stream ⇔ Second stream



Play: Click this button by manually to start the stream



Stop: Click this button by manually to stop streaming

*NOTE: It is possible that not all the buttons described below will be visible unless the Live View page has been customized to display them.*

### 3.1 Video Stream Types

#### Motion JPEG

This format uses standard JPEG images in the video stream. These images are then displayed and updated at a rate sufficient to create a stream that shows constantly updated motion.

The Motion JPEG stream uses a considerable amount of bandwidth, but it also provides excellent image quality and access to every individual image contained in the stream.

#### H.264 protocols and communication methods

- **RTP (Real-time Transport Protocol)** is a protocol that allows programs to manage the real-time transmission of multimedia data, via unicast or multicast.
- **RTSP (Real Time Streaming Protocol)** serves as a control protocol, to negotiate the type of transport protocol to use for the stream. RTSP is used by a viewing client to start a unicast session.
- **UDP (User Datagram Protocol)** is a communications protocol that offers limited service for exchanging data in a network which uses the Internet Protocol (IP).

UDP is an alternative to the Transmission Control Protocol (TCP). The advantage of UDP is that, it is not required to deliver all data and may drop network packets when there is network congestion. This is suitable for live video, as there is no point in re-transmitting old information that will not be displayed anyway.

- **Unicasting** is communication between a single sender and a single receiver over a network. This means that the video stream goes independently to each user, and each user gets own stream. A benefit of unicasting is, in case one stream fails, it only affects one user.

- **Multicasting** is bandwidth-conserving technology that reduces bandwidth usage by simultaneously delivering a single stream of information to multiple network recipients. This technology is used primarily on delimited networks (intranets), as each user needs an uninterrupted data flow and should not rely on network routers. (Note that multicasting may not be available with the firmware you received; check the Vicon website for updated firmware.)

## 3.2 How to Stream H.264

Deciding on the combination of protocols and methods to use depends on your viewing requirements, and on the properties of your network. Setting the preferred method(s) is done in webpage.

### **RTP+RTSP**

This method (actually RTP over UDP and RTSP over TCP) should be your first consideration for live video, especially when it is important to always have an up-to-date video stream, even if some images are lost due to network problems. This could be configured as multicast or unicast.

**RTP/RTSP/Unicasting** should be used for video-on-demand broadcasting, so that there is no video traffic on the network until a client connects and requests the stream. However, as more and more unicast clients get connected, the traffic on the network will increase and may cause congestion. Although there is a maximum of 10 unicast viewers, note that all multicast users combined count as 1 unicast viewer.

### **RTP/RTSP**

This unicast method is RTP tunneled over RTSP. This could be used to exploit the fact that it is relatively simple to configure firewalls to allow RTSP traffic.

## 4. Setup

The V992D-N4 is configured from the Setup link, which is available on the top left hand side in the web interface. This configuration could be done by:

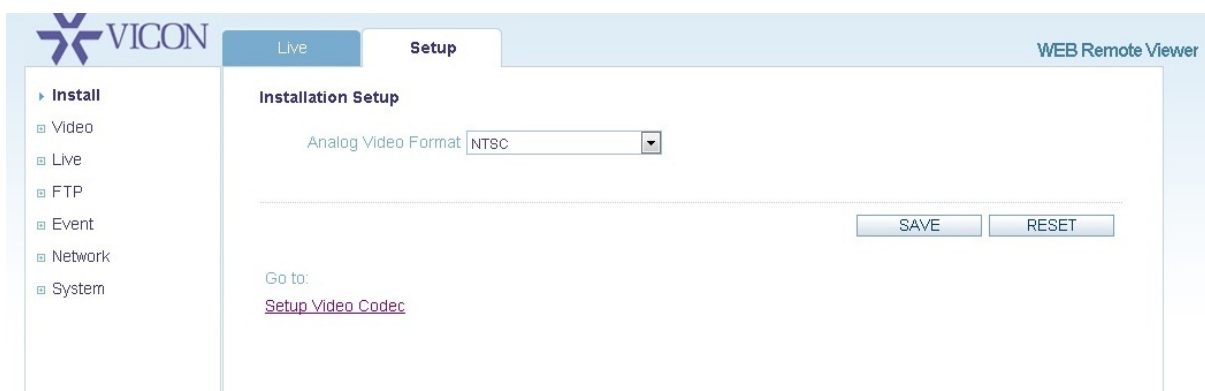
- **Administrators**, who have unrestricted access to all settings under the Setup tab.

Accessing the Setup link from a browser

1. Start your web browser and enter the IP address or host name of the camera into the address bar.
2. The Live View page is now displayed. Click on the Setup tap.



### 4.1 Install



#### 4.1.1 Installation Setup

**Installation Mode** allows use of the analog BNC output from the camera to connect the camera

NTSC, PAL: Analog Output is enabled.  
OFF: Analog output will be disabled.

## 4.2 Video

The following descriptions show examples of some of the features available with V992D-N4.

The screenshot shows the VICON Setup interface. On the left is a navigation menu with options: Install, Video, Codec (selected), Camera, Live, FTP, Event, Network, and System. The main area is titled 'Video Codec' and is divided into two columns for 'Stream 1st' and 'Stream 2nd'. Each column contains settings for Codec (H.264), Size (1920x1080 for 1st, 640x480 for 2nd), Frame Rate (FPS) (30), GOP Size (30), Bit-rate Control (CBR), Average Bit-rate (8000 kbps for 1st, 1600 kbps for 2nd), Output Bit-rate (8000 kbps for 1st, 1600 kbps for 2nd), and Quality (80). Below these are 'Anti-Flicker Mode' (60Hz) and 'Video Mirroring' (VERTICAL). At the bottom right are 'SAVE' and 'RESET' buttons. At the bottom left, there are links for 'Setup Installation' and 'Setup Camera'.

### 4.2.1 Codec

This section allows you to choose the compression codec for each of the video streams.

#### Codec

##### H.264

This is a video compression standard that makes good use of bandwidth and could provide high-quality video streams.

The H.264 standard provides the scope for a large range of different coding tools for use by various applications in different situations, and the V992D-N4 provides certain subsets of these tools.

Using H.264, it is also possible to control the bit rate, which in turn allows the amount of bandwidth usage to be controlled. CBR (Constant Bit Rate) is used to achieve a specific bit rate by varying the quality of the H.264 stream. While using VBR (Variable Bit Rate), the quality of the video stream is kept as constant as possible, at the cost of a varying bit rate.

##### Motion JPEG

This format uses standard JPEG still images in the video stream. These images then are displayed and updated at a rate sufficient to create a stream that shows constantly updated motion.

The Motion JPEG stream uses considerable amounts of bandwidth, but also provides excellent image quality and access to every individual image contained in the stream. Multiple clients accessing Motion JPEG streams could use different image settings.

**Size**

Video output resolution. See the output resolution table that follows.

**Frame rate**

1 ~ 30fps (60Hz) / 1 ~ 25fps (50Hz)

**GOP Size**

1 ~ 60 frames

**Bit-rate control (CBR or VBR)**

When using H.264 compression, if there is only limited bandwidth available, a constant bit rate (CBR) is recommended, although this may compromise image quality. Use a variable bit rate (VBR) for the best possible image quality.

**Average Bit-rate (512Kbps ~ 10Mbps)**

Recommended bit rate for D1 or VGA : 800Kbps ~ 1Mbps

Recommended bit rate for 1.3M (720p) : 3Mbps ~ 4Mbps

Recommended bit rate for 2.0M (1080p) : 6Mbps ~ 8Mbps

**Boost Quality**

The Boost feature is used in conjunction with Video Motion Detection (VMD). When this feature is turned ON, the Boost FPS can be set to a different value than the Frame Rate set for the camera in the field above. When motion is detected, the camera will boost the fps from the regular level set for the camera to this boosted level for the duration of the motion. Boost Quality can be set ON or OFF. (Note that multicasting may not be available with the firmware you received; check the Vicon website for updated firmware.)

**Quality**

1 ~ 100 This parameter is only available in M-JPEG mode.

**Anti-Flicker mode (Flicker less mode)**

60Hz / 50Hz

**Video Mirroring**

Select Video Mirroring mode NONE/HORIZONTAL/VERTICAL/FLIP(H+V)



## < Output resolution and Frame rate table for V992D-N4 > (Unit: fps)

RESOLUTION Table			Second Stream							
			720p	4CIF	4CIF*	VGA 4:3	VGA 16:9	VGA* 16:9	CIF	QVGA
			1280x720	704x480	704x576	640x480	640x360	640x352	352x240/288	352x240
First Stream	1080p	1920x1080	N/A	24	24	25/30	25/30	25/30	25/30	25/30
	SXGA	1280x1024	N/A	25/30	25/30	25/30	25/30	N/A	25/30	25/30
	XGA	1024x768	N/A	25/30	25/30	25/30	25/30	N/A	25/30	25/30
	720p	1280x720	25/30	25/30	25/30	25/30	25/30	N/A	25/30	N/A
	4CIF	704x480	N/A	25/30	N/A	25/30	25/30	N/A	25/30	N/A
	4CIF*	704x576	N/A	N/A	25/30	25/30	25/30	N/A	25/30	N/A
	VGA 4:3	640x480	N/A	N/A	N/A	25/30	N/A	N/A	N/A	25/30
	VGA 16:9	640x360	N/A	N/A	N/A	N/A	25/30	N/A	N/A	25/30
	CIF	352x240/288	N/A	N/A	N/A	N/A	N/A	N/A	25/30	N/A
	QVGA	320x240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25/30

### 4.2.2 Camera

This section allows you to adjust various camera settings.

The screenshot shows the VICON camera setup interface. On the left is a navigation menu with options: Install, Video, Codec, Camera (selected), Live, FTP, Event, Network, and System. The main area displays a live video feed of a garden scene. Below the feed are several configuration sections:

- Exposure Control:** Exposure Mode (AUTO), AGC Gain (0 dB [0 ~ 36]), e-Shutter Speed (200 1/(Value) [4 ~ 2000]), Slow Shutter (OFF), MAX AGC (LOW), BLC Control (OFF).
- White Balance Control:** WB Mode (AUTO), MWB Mode (INDOOR (2800K)).
- Image Property Control:** Sharpness (8 [1 ~ 15, Def.: 8]), Brightness (15 [0 ~ 30, Def.: 15]), Contrast (15 [0 ~ 30, Def.: 15]), Color (15 [0 ~ 30, Def.: 15]).
- Day / Night Mode:** AUTO, 0 sec.
- Anti-Flicker Mode:** [Go to Anti-Flicker setup](#)
- Video Mirroring:** [Go to Mirroring setup](#)

At the bottom right are buttons for SAVE and RESET.

This section allows you to adjust various camera settings.

### Exposure Control

#### Exposure Mode

AUTO: Use this setting for automatic exposure control.

MANUAL: Use this setting to control camera exposure manually.

To compensate for poor lighting conditions, you can adjust the Color level, Brightness, Sharpness, Contrast and Exposure control.

*NOTE: When AE is enabled, some of the submenus (AGC Gain, e-Shutter Speed) will be disabled.*

### **AGC Gain**

0 ~ 36 dB

### **Slow shutter mode**

For low light conditions, turn on slow shutter mode.

### **Max AGC Gain**

LOW/HIGH selectable.

### **BLC Control (Back Light Compensation)**

The BLC adjusts the exposure of scenes with strong backlight in the center-bottom of the image. When the image background is too bright, or the subject too dark, backlight compensation makes the subject appear clearer. The settings for low light behavior determine how the camera behaves at low light levels. These settings affect video image quality and how much noise is in the images.

### **Day & Night Control**

#### **Day & Night Mode**

Auto/Day/Night

Set this filter to OFF to allow the camera to 'see' infrared light, removing the IR cut filter, when using an IR illuminator. This will make the image clearer. If set to Auto, the camera will automatically switch between IR cut filter On and Off, according to the current lighting conditions.

0/5/10/15/30/60 sec: Set detection window time in order to avoid failure switching.

### **White Balance Control**

#### **WB Mode**

AUTO: Automatic White balance

MANUAL: Manual White balance

The White balance adjustment setting is used to make the colors in the image appear consistent, compensating for the different colors present in different light sources.

The V992D-N4 camera can be set to automatically identify the light source and compensate for its color temperature. If necessary, the type of light source could be set manually.

### **Image Property Control**

Modify the video signal parameters, such as: Brightness, Sharpness, Contrast, and Color.

<b>Sharpness</b>	(Default: 8, Range: 1~15)
<b>Brightness</b>	(Default: 15, Range: 0~30)
<b>Contrast</b>	(Default: 15, Range: 0~30)
<b>Color</b>	(Default: 15, Range: 0~30)



## 4.3 Live

V992D-N4 can support up to 10 simultaneous users via unicast.

VICON WEB Remote Viewer

Live Setup

Viewer Setup

LiveView Protocol: RTP over RTSP (TCP)

Buffering Time: 0 x 1/30sec. [0~90: 0 ~ 3sec. ]

Viewer OSD Setup

Date: OFF

Resolution: OFF

Event State: OFF

SAVE RESET

### 4.3.1 Viewer Setup

#### Live View Protocol

RTP Unicast (UDP) / RTP over RTSP (TCP)

#### Buffering Time (frame based)

Determines (0 ~ 90) x 1/30 sec (0 ~ 3sec)

#### Viewer OSD Setup

**Date:** Determines whether the date is displayed.

**Resolution:** Determines whether the camera resolution is displayed.

**Event State:** Determines whether the event state is shown on display window (M for motion is shown in Live View).

## 4.4.FTP

The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Config (selected), Event, Periodical, Event, Network, and System. The main area is titled 'Client Configuration' and contains the following fields: Server IP (0.0.0.0), Port (21, with a note '[Def.:21, 1025~65535]'), User name, Password, and Send mode (Active). There are 'SAVE' and 'RESET' buttons at the bottom right. Below the buttons is a 'Go to:' link pointing to 'Setup Video Codec'. A note at the bottom states: '<Note> When First stream is "1920x1080" and Second stream is more than "640x352" without MJPEG at any streams, 30 FPS is not guaranteed. To be able to capture 30 FPS, Please set MJPEG or less than resolution as above.'

### 4.4.1 Config

#### Server Configuration

Allows transmission of still images to remote sites using the FTP server. Set the information for FTP transmission by inserting the IP address, Port, Username and Password of the remote FTP Server.

### 4.4.2 Event

The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Config, Event (selected), Periodical, Event, Network, and System. The main area is titled 'Event FTP Sending' and contains the following settings: FTP Sending (radio buttons for Enable and Disable, with Disable selected), Directory (event), File Prefix (ex) alm\_, FTP Send Mapping (checkbox for Motion, which is unchecked), Effective Period (radio buttons for Always and Schedule, with Always selected), and a time selection field showing 00:00 - 00:00. There are 'SAVE' and 'RESET' buttons at the bottom right. Below the buttons is a 'Go to:' link pointing to 'Setup Video Codec'. A note at the bottom states: '<Note> When First stream is "1920x1080" and Second stream is more than "640x352" without MJPEG at any streams, 30 FPS is not guaranteed. To be able to capture 30 FPS, Please set MJPEG or less than resolution as above.'

#### Event FTP Sending

You can configure the camera to upload still images to FTP server based on event such as Motion detection.

## Directory

The name of the directory where the still images will be stored when an Event occurs.

## File Prefix

You may add a file name prefix to the stored image file name.

Example: *If the file prefix is 'MVD', the still image would be saved as MVD\_date\_time.jpg.*

## FTP Send Mapping

Choose which types of events will be recorded to the FTP server by checking the desired event.

## Effective Period

This parameter lets you decide whether to save all the events that are happening at all hours of the day, or only the events that occur within during specific times of the day. The Schedule method is used to save events into the FTP server during a specific time range. The start time and the end time can be set using the dropdown list.

### 4.4.3 Periodical

The screenshot shows the VICON Setup window with the 'Periodical' option selected in the left sidebar. The main panel is titled 'Periodical FTP Sending'. It contains the following settings:

- FTP sending:** Radio buttons for 'Enable' and 'Disable'. 'Disable' is selected.
- Directory:** Text input field containing 'periodical'.
- File Prefix:** Text input field containing 'per\_'.
- Interval:** Dropdown menu set to '10 sec'.
- Effective Period:** Radio buttons for 'Always' and 'Schedule'. 'Always' is selected.
- Schedule:** Time selection fields showing '00:00 - 00:00'.

At the bottom right of the main panel are 'SAVE' and 'RESET' buttons. Below the main panel, there is a 'Go to:' link pointing to 'Setup Video Codec'. A note at the bottom states: '<Note> When First stream is "1920x1080" and Second stream is more than "640x352" without MJPEG at any streams, 30 FPS is not guaranteed. To be able to capture 30 FPS, Please set MJPEG or less than resolution as above.'

## Periodical FTP Sending

It allows transmission of still images periodically to the FTP server.

## Directory

The name of the directory where the still images will be stored.

## File Prefix

You may add a file name prefix to the stored image file name.

Example: *If the file prefix is 'per', the still image would be saved as per\_date\_time.jpg.*

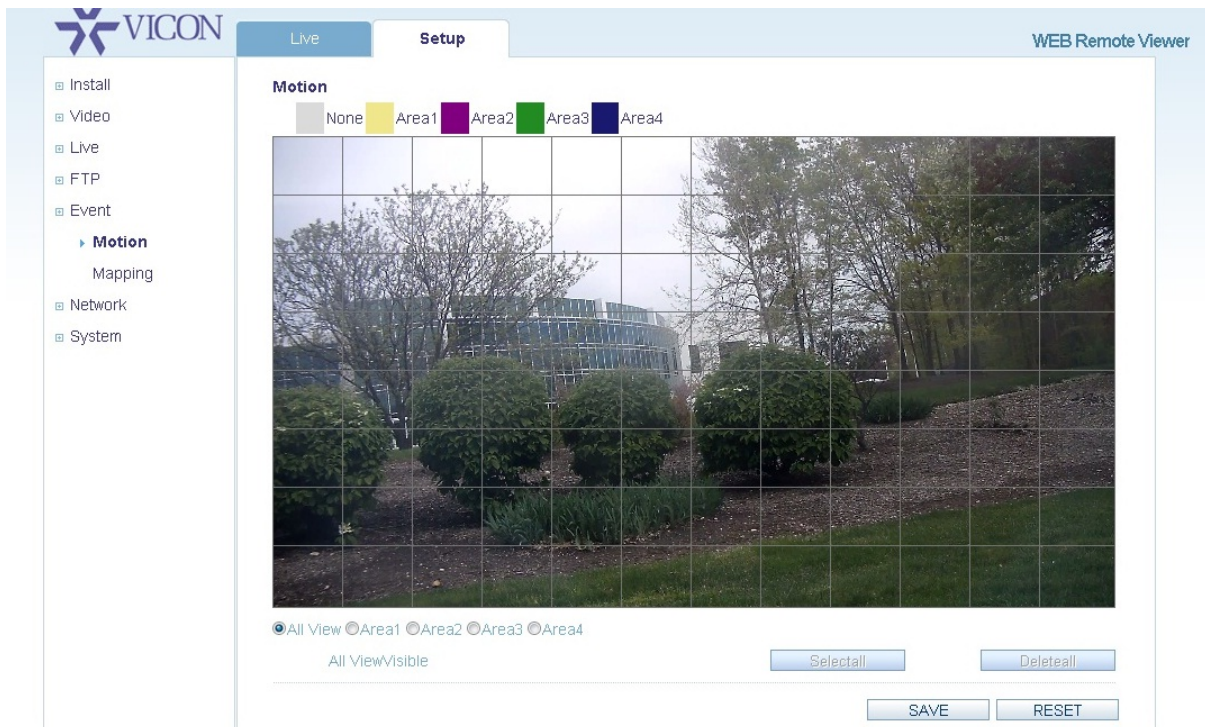
## Interval

It allows for saving still images based on frequency (1 image every 10 sec, for example). Use the drop-down control to set from 10 seconds to 1 hour.

## Effective Period

This parameter lets you decide whether to save still images at all hours of the day, or during specific times of the day.

## 4.5.Event



### 4.5.1 Motion

## Motion Detection

Motion detection is used to generate an alarm whenever movement occurs within the video image.

A total of 4 motion detection zones can be configured.

## Configuring Motion Detection

1. Click **Motion** in the **Event** menu.
2. Click Area1-4 button for the area to be defined and select the corresponding area for motion detection by clicking the relevant color box.
3. Click the box on the video image where the motion area is to be located and adjust the size of the area by dragging the outlined box across and down in one motion.
4. Adjust the Object Sensitivity from the drop down list, 1-10. The Sensitivity list only displays when an area is selected; it is not visible when All View is selected. Use the Selectall button to have the entire scene in the selected area. Deleteall is available to eliminate all selected areas.
5. Click **Save**. When motion occurs in the defined area, a red dot appears on the Live video.

*NOTE: Using the motion detection feature will consume more of the cameras resources, and this could decrease the camera's overall performance, depending on your settings.*

## 4.5.2 Mapping

The screenshot shows the VICON WEB Remote Viewer interface. The 'Setup' tab is selected, and the 'Event Mapping' section is active. On the left, a sidebar lists navigation options: Install, Video, Live, FTP, Event, Mapping (selected), Network, and System. The main area displays a table for event mapping. The first row has 'Alarm Sensor' in the first column and 'E-mail' in the second column. The second row has 'Motion' in the first column and a checkbox in the second column. Below the table are 'SAVE' and 'RESET' buttons. At the bottom, there is a 'Go to:' section with links for 'Setup E-mail' and 'Motion'.

Event	Action
Alarm Sensor	E-mail
Motion	<input type="checkbox"/>

Go to:  
[Setup E-mail](#)  
[Motion](#)

### Event Mapping

It is possible to define conditions that would cause the camera to respond with certain actions.

A triggered event happens as a result of an event that is mapped within this menu. This could be caused by motion detection.

**E-mail** notification could be sent by **Motion** Event.

## 4.6 Network

The screenshot shows the VICON WEB Remote Viewer interface. The 'Setup' tab is selected, and the 'IP Address' section is active. On the left, a sidebar lists navigation options: Install, Video, Live, FTP, Event, Network (selected), IP Setup (selected), Service Port, E-mail, and System. The main area displays the 'IP Address' configuration. There are two radio buttons: 'Get IP address from DHCP server' (selected) and 'Use the following IP address'. Below the radio buttons are input fields for IP Address (192.168.10.160), Subnet Mask (255.255.255.0), Default Gateway (192.168.10.1), 1st DNS (129.69.200.2), and 2nd DNS (129.69.200.6). A 'PING TEST' button is next to the IP Address field. At the bottom are 'SAVE' and 'RESET' buttons.

☒ Get IP address from DHCP server  
☐ Use the following IP address

IP Address:    
Subnet Mask:   
Default Gateway:   
1st DNS:   
2nd DNS:

### 4.6.1 IP Setup

#### IP Address Configuration

The IP address could be set automatically via DHCP, or a static IP address could be set manually.

*NOTE: IP address assignment via DHCP may lead to the situation where the IP address changes and you lose contact with the camera. If your DHCP server can update a DNS server, you can access the V992D-N4 by a static host name, regardless of having a dynamic IP address. Configure the options for notification of IP address change (under Services) to receive notification from the camera when the IP address changes.*

## DNS Configuration

DNS (Domain Name Server) provides the translation of host names to IP addresses on your network.

### Primary DNS server

Enter the IP address of the Primary DNS server for your network.

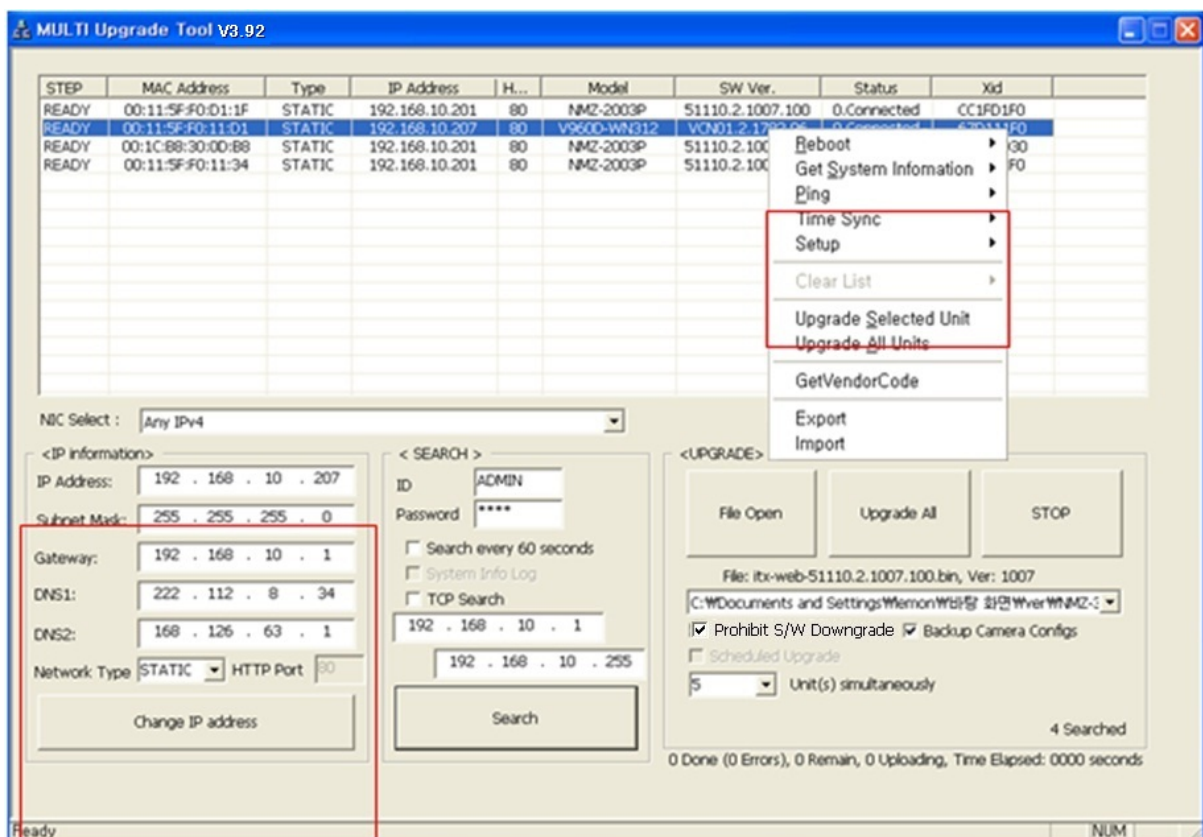
### Secondary DNS server

Enter the IP of the Secondary DNS, which is used if the Primary DNS server is unavailable.

## How to assign IP address

Execute the Multi Upgrade Tool (from the Installation CD); it will search cameras on the network automatically.

- 1) After the list of detected devices appears, select the camera you are trying to configure.

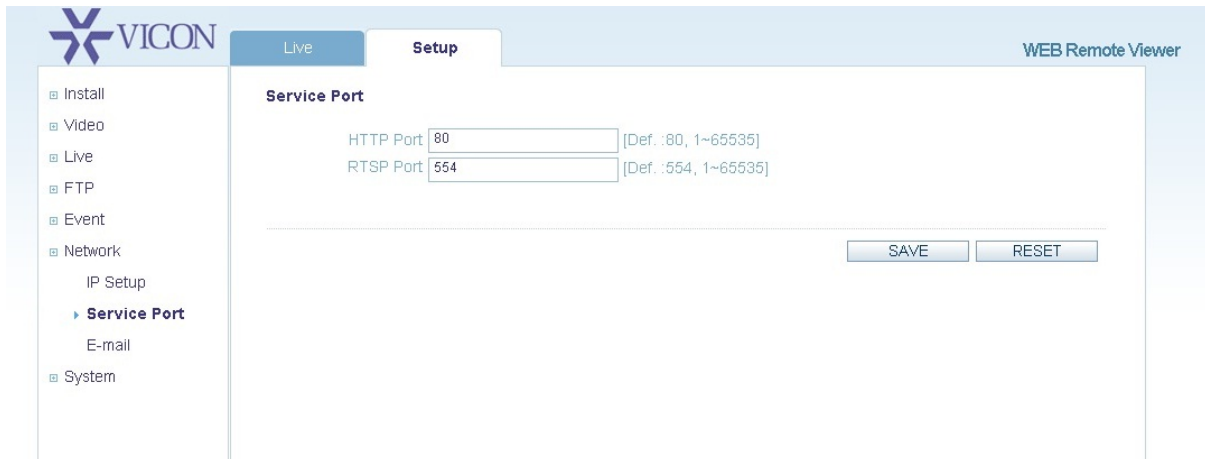


- 2) Select the Network type as Static or DHCP. If Static is selected, enter all of the network information for your camera.

- 3) Select the “Change IP Address” button. The message “Do you want to change IP address?” will display; select “Yes” from the pop-up window.
- 4) Check the Type as Static or DHCP from the list.

When you double-click the camera within the list, the default web browser (Internet Explorer or compatible equivalent) will open and automatically connect to the camera.

## 4.6.2 Service Port



The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Event, Network (with sub-options IP Setup and Service Port), E-mail, and System. The 'Service Port' option is selected. The main area is titled 'Service Port' and contains two input fields: 'HTTP Port' with the value '80' and a default range '[Def.: 80, 1~65535]', and 'RTSP Port' with the value '554' and a default range '[Def.: 554, 1~65535]'. At the bottom right of the main area are 'SAVE' and 'RESET' buttons. The top of the interface has 'Live' and 'Setup' tabs, with 'Setup' being active, and a 'WEB Remote Viewer' label in the top right corner.

### Service Port

#### HTTP port

The default HTTP port number (**80**) could be changed to any port within the valid port range (1-65535). This is useful for simple port mapping.

#### RTSP port

The RTSP protocol allows a connecting client to start an H.264 stream. Enter the RTSP port number to use. The default setting is 554.

*NOTE: After changing the default port numbers, the user can use the ‘Multi Upgrade Tool’ to search and connect automatically if they can’t remember the specific port numbers that they used.*



### 4.6.3 E-mail

The screenshot shows the 'E-mail Setup' page in the VICON WEB Remote Viewer. The left sidebar contains a tree view with options: Install, Video, Live, FTP, Event, Network, IP Setup, Service Port, E-mail (selected), and System. The main content area has a 'Setup' tab. Under 'E-mail Setup', there are fields for Notification (OFF), Frequency (5 Min), Server, Port (25), Security (OFF), User, Password, and From. At the bottom right are 'SAVE' and 'RESET' buttons. Below the buttons are links: 'Go to: Setup To enable Address' and 'Setup Event Mapping'.

You must turn Notification to 'On' and then enter the host names or addresses for your mail servers in the fields provided to enable the sending of event and error email messages from the camera to predefined addresses via SMTP.

#### NOTE 1)

*Frequency: Mail server may register the sender to SPAM list if frequency is set to "1 Min". To be safe, it may be better to set "5 Min".*

#### NOTE 2)

*From: Specify the name that sent e-mail notification. It may be better to use e-mail format like [aaa@bbb.com](mailto:aaa@bbb.com), as some e-mail servers refuse certain formats.*

### 4.7 System

The screenshot shows the 'User Management' page in the VICON WEB Remote Viewer. The left sidebar contains a tree view with options: Install, Video, Live, FTP, Event, Network, System, and User (selected). The main content area has a 'Setup' tab. Under 'User Management', there is a table with columns: User ID, Password, Group, E-mail, Notification, and Del/Add. The table has two rows: one for 'ADMIN' with a password of '\*\*\*\*' and a group of 'Admin', and another row for a new user with a password of '\*\*\*\*' and a group of 'Admin'. At the bottom right are 'SAVE' and 'RESET' buttons. Below the buttons is a link: 'Go to: Setup E-mail'.

User ID	Password	Group	E-mail	Notification	Del/Add
ADMIN	****	Admin		<input type="checkbox"/>	
	****	Admin		<input type="checkbox"/>	Add



### 4.7.1 User

When you access the camera, the Configure Root Password dialog box appears. Enter the default user name **ADMIN** and password **1234** to log in.

To change the password or add a user, go to Setup > System > User. Fill in the User ID, Password and E-mail address. Select the Group. Then press the 'ADD' button and click 'SAVE'.

*NOTE: The default administrator username ADMIN is permanent and cannot be deleted or altered.*

### 4.7.2 Date / Time

The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Event, Network, System, User, Date / Time (selected), Maintenance, and Information. The main area is titled 'Setup' and contains the 'Date / Time Setup' section. It displays the 'Current Server Time' as 1929/07/28 20:06:10. Below this are dropdowns for 'Date format' (set to YYYY/MM/DD) and 'Time format' (set to 24 Hour). There are two radio buttons: 'Synchronize with NTP server' (selected) and 'User set manually'. The 'NTP server' field contains 'POOL.NTP.ORG'. The 'Local Time' field shows '1929 / 07 / 28 20 : 05 : 58' with a 'PC Sync / SAVE' button next to it. Below these are dropdowns for 'Time Zone' (set to GMT+09:00 Asia/Seoul) and 'D.S.T' (set to OFF). At the bottom right of the setup area are 'SAVE' and 'RESET' buttons.

#### Date & Time Format

Specify the formats for the date and time (12h or 24h) displayed in the Live View video streams.

#### NTP Server

Synchronize the time from an NTP server every 60 minutes. Specify the IP address or host name of the NTP server you are using.

#### Local Time / PC Sync/SAVE

Specify Local time manually or Synchronize to PC time automatically.

#### Time Zone Setup

You may select your time zone from the drop-down list.

#### D.S.T. (Daylight Saving Time)

Toggle automatic DST clock adjustment on/off.

### 4.7.3 Maintenance

The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Event, Network, System, User, Date / Time, Maintenance (highlighted), and Information. The main area has two tabs: 'Live' and 'Setup'. The 'Setup' tab is active, showing the 'Maintenance' section. It contains the following fields and buttons: 'System Name' with a text input field containing 'NetCamera'; 'System Reboot' with an 'OK' button; 'Factory Default' with an 'OK' button; 'Firmware Updates' with a file selection area and a 'Browse...' button, and an 'OK' button below it. At the bottom right of the main area are 'SAVE' and 'RESET' buttons.

#### System Name

Choose a system name to identify the camera when using e-mail notifications.

#### System Reboot

Reboots the camera.

#### Factory Default

To reset the camera back to the original factory default settings.

#### Firmware Update

From time to time, CBC will release firmware updated for the PixelPro Series camera, which will contain feature additions and other improvements. Always read the upgrade instructions and release notes that accompany each new firmware release, before updating the firmware.

*NOTE: Preconfigured and customized settings should be saved before the firmware is upgraded.*

## Firmware Update Procedure

1. Save the firmware file to your computer.
2. Go to Setup > System > Maintenance within the camera web browser setup.
3. In the Firmware Update section, browse to the desired firmware file on your computer. Then click OK.

*NOTE: Do not disconnect power to the unit during the upgrade. The unit will restart automatically after the upgrade has completed (1~5 minutes).*

4. If you suspect the firmware upgrade for the camera has failed, always wait at least 5-10 minutes before restarting the upgrade process.
5. Vicon reserves the right to charge for any camera repair which can be attributed to faulty upgrading by the user. Always read the upgrade instructions and firmware release notes before updating the firmware.

## System Reboot

There are two ways to reset the camera.

*Case 1) Using the web browser:*

1. Go to SETUP > System > Maintenance.
2. Click "System Reboot" button and wait 1 minute for camera to reboot.

*Case 2) Using the Reset Button of the camera:*

1. Press and hold for 5 seconds, then release the button.

## Factory Default Reset

There are two ways to reset the camera back to factory defaults.

*Case 1) Using the web browser:*

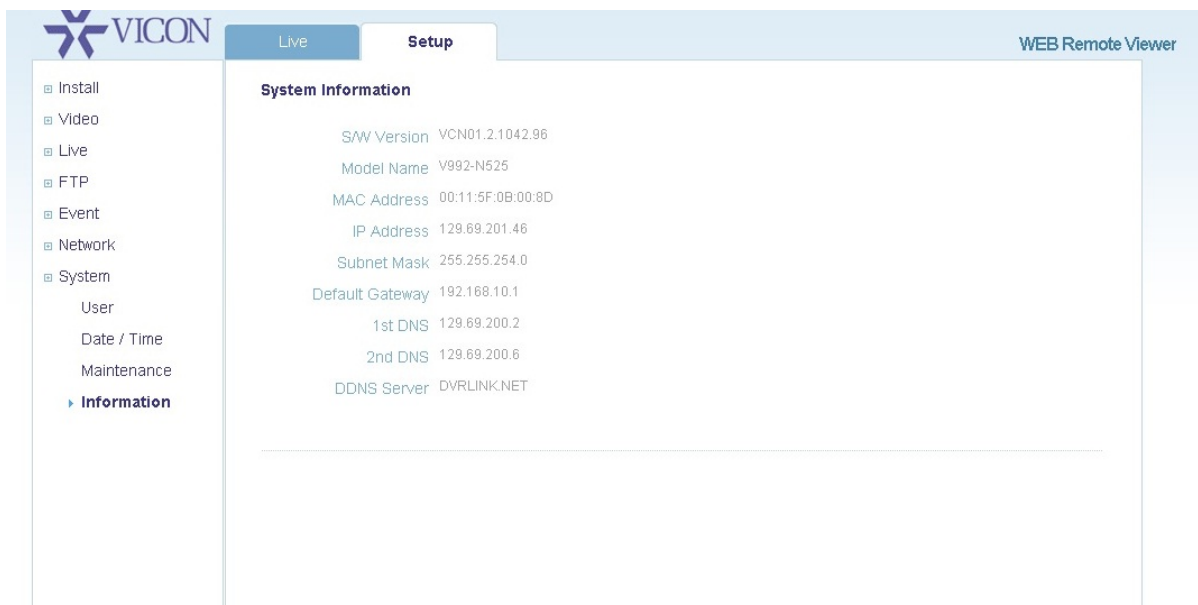
1. Go to SETUP > System > Maintenance.
2. Click "Factory Default" button.

*Case 2) Using the Reset Button of the camera:*

1. Push and hold the Reset button for more than 10 seconds.
2. Release the Reset button.

*NOTE: The unit will now have the default IP address from a DHCP server.  
Use the 'Multi Upgrade Tool' to discover and connect to the camera.*

## 4.7.4 Information



The screenshot shows the VICON WEB Remote Viewer interface. On the left is a navigation menu with options: Install, Video, Live, FTP, Event, Network, System, User, Date / Time, Maintenance, and Information (highlighted with a blue arrow). The main area has two tabs: 'Live' and 'Setup' (selected). Under the 'Setup' tab, the 'System Information' section displays the following details:

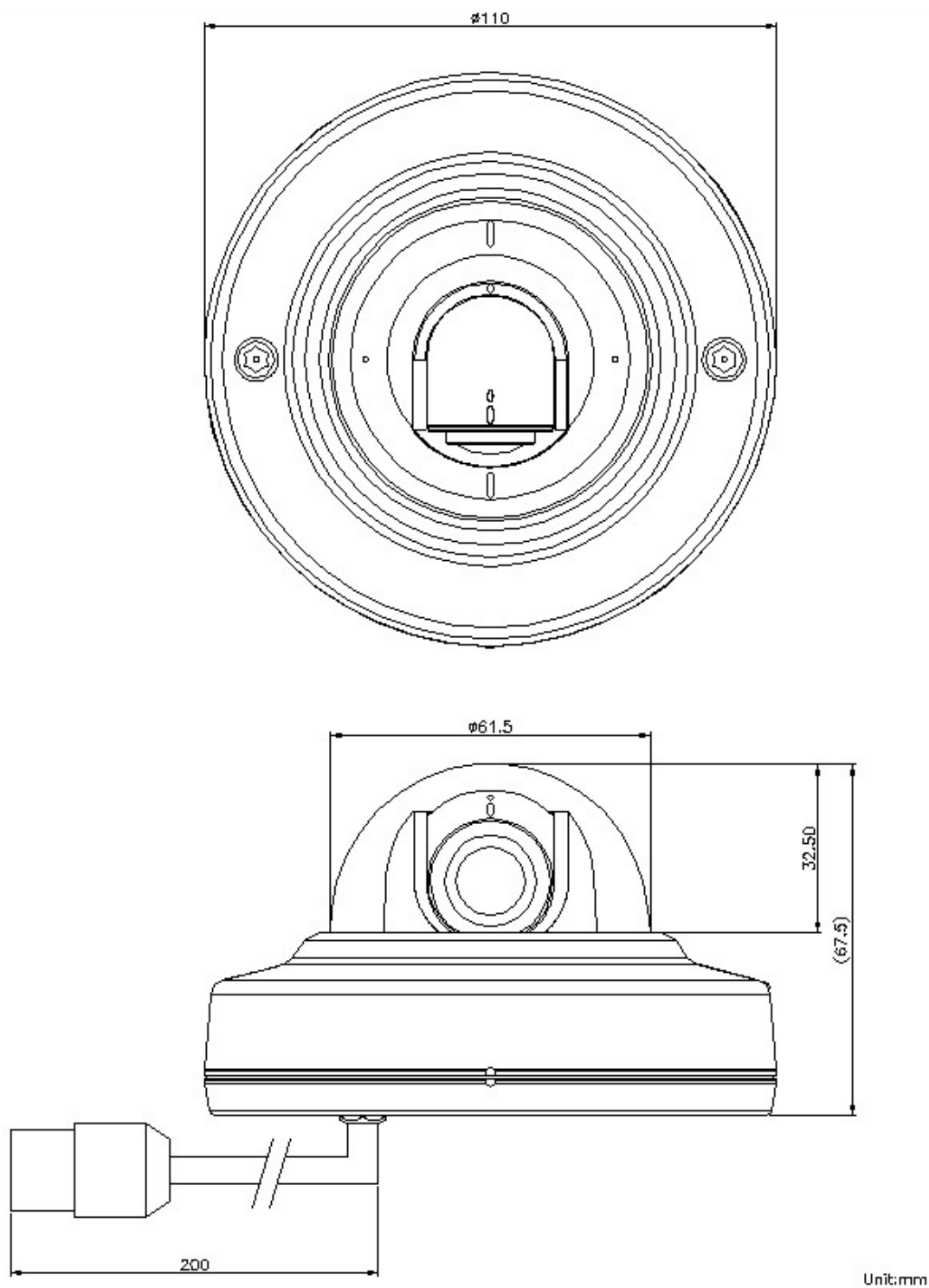
System Information	
S/W Version	VCN01.2.1042.96
Model Name	V992-N525
MAC Address	00:11:5F:0B:00:8D
IP Address	129.69.201.46
Subnet Mask	255.255.254.0
Default Gateway	192.168.10.1
1st DNS	129.69.200.2
2nd DNS	129.69.200.6
DDNS Server	DVRLINK.NET

### System Information

Confirm the system information of the camera:

S/W version/Model Name/MAC address/IP address settings.

## 5. Dimensions





## Français/French

### Élimination de votre ancien appareil

1. Ce symbole, représentant une poubelle sur roulettes barrée d'une croix, signifie que le produit est couvert par la directive européenne 2002/96/EC.
2. Tous les produits électriques et électroniques doivent être éliminés séparément de la chaîne de collecte municipale des ordures, par l'intermédiaire des installations de collecte prescrites et désignées par le gouvernement ou les autorités locales.
3. Une élimination conforme aux instructions aidera à réduire les conséquences négatives et risques éventuels pour l'environnement et la santé humaine.
4. Pour plus d'informations concernant l'élimination de votre ancien appareil, veuillez contacter votre mairie, le service des ordures ménagères ou encore le magasin où vous avez acheté ce produit.

## English

### Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

## Deutsch/German

### Entsorgung von Altgeräten

1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
2. Alle Elektro- und Elektronik-Altgeräte müssen getrennt vom Hausmüll über die dafür staatlich vorgesehenen Stellen entsorgt werden.
3. Mit der ordnungsgemäßen Entsorgung des alten Geräts vermeiden Sie Umweltschäden und eine Gefährdung der persönlichen Gesundheit.
4. Weitere Informationen zur Entsorgung des alten Geräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, wo Sie das Produkt erworben haben.



## Italiano/Italian

### RAEE: SMALTIMENTO DELLE VOSTRE VECCHIE APPARECCHIATURE

1. Quando il simbolo del "Cassonetto Barrato" è apposto su un prodotto, significa che lo stesso può ricadere nei termini previsti dalla Direttiva Europea nr. 2002/96/EC in funzione dell'attuazione definita dalla Legislazione dei singoli stati membri dell'Unione Europea.
2. Tutti i prodotti elettrici ed elettronici dovrebbero essere smaltiti separatamente dai rifiuti municipali, tramite appositi contenitori, approvati dall'Amministrazione Comunale o dalle Autorità Locali.
3. Il corretto smaltimento delle vostre vecchie apparecchiature, contribuirà a prevenire possibili conseguenze di impatto negativo sull'ambiente e per la salute dell'uomo.
4. Per maggiori informazioni circa lo smaltimento delle vostre vecchie apparecchiature, siete pregati di contattare l'ufficio municipale della vostra città, il servizio di smaltimento rifiuti o il punto vendita nel quale avete acquistato il prodotto.

## Polski/Polish

### Utylizacja starych urządzeń

1. Kiedy do produktu dołączony jest niniejszy przekreślony symbol kołowego pojemnika na śmieci, oznacza to, że produkt jest objęty europejską dyrektywą 2002/96/EC.
2. Wszystkie elektryczne i elektroniczne produkty powinny być utylizowane niezależnie od odpadów miejskich, z wykorzystaniem przeznaczonych do tego miejsc składowania wskazanych przez rząd lub miejscowe władze.
3. Właściwy sposób utylizacji starego urządzenia pomoże zapobiec potencjalnie negatywnemu wpływowi na zdrowie i środowisko.
4. Aby uzyskać więcej informacji o sposobach utylizacji starych urządzeń, należy skontaktować się z władzami lokalnymi, przedsiębiorstwem zajmującym się utylizacją odpadów lub sklepem, w którym produkt został kupiony.

## Português/Portuguese

### Eliminação do seu antigo aparelho

1. Quando este símbolo de latão cruzado estiver afixado a um produto, significa que o produto é abrangido pela Directiva Europeia 2002/96/EC.
2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente da coleta de lixo municipal através de pontos de recolha designados, facilitados pelo governo ou autoridades locais.
3. A eliminação correcta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
4. Para obter informações mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.

## Español/Spanish

### Cómo deshacerse de aparatos eléctricos y electrónicos viejos

1. Si en un producto aparece el símbolo de un contenedor de basura tachado, significa que éste se acoge a la Directiva 2002/96/EC.
2. Todos los aparatos eléctricos o electrónicos se deben desechar de forma distinta del servicio municipal de recogida de basura, a través de puntos de recogida designados por el gobierno o las autoridades locales.
3. La correcta recogida y tratamiento de los dispositivos inservibles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
4. Para obtener más información sobre cómo deshacerse de sus aparatos eléctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.

## Shipping Instructions

Use the following procedure when returning a unit to the factory:

1. Call or write Vicon for a Return Authorization (R.A.) at one of the locations listed below. Record the name of the Vicon employee who issued the R.A.

Vicon Industries Inc.  
89 Arkay Drive  
Hauppauge, NY 11788  
Phone: 631-952-2288; Toll-Free: 1-800-645-9116; Fax: 631-951-2288

For service or returns from countries in Europe, contact:

Vicon Industries (U.K.) Ltd  
Brunel Way  
Fareham, PO15 5TX  
United Kingdom  
Phone: +44 (0)1489/566300; Fax: +44 (0)1489/566322

2. Attach a sheet of paper to the unit with the following information:
  - a. Name and address of the company returning the unit
  - b. Name of the Vicon employee who issued the R.A.
  - c. R. A. number
  - d. Brief description of the installation
  - e. Complete description of the problem and circumstances under which it occurs
  - f. Unit's original date of purchase, if still under warranty
3. Pack the unit carefully. Use the original shipping carton or its equivalent for maximum protection.
4. Mark the R.A. number on the outside of the carton on the shipping label.



## Vicon Standard Equipment Warranty

Vicon Industries Inc. (the "Company") warrants your equipment to be free from defects in material and workmanship under Normal Use from the date of original retail purchase for a period of three years, with the following exceptions:

1. Monitors, all models: One year from date of original retail purchase.
2. Uninterruptible Power Supplies: Two years from date of original retail purchase.
3. VDR-700 Recorder Series: One year from date of original retail purchase.
4. V5616MUX: One year from date of original retail purchase.
5. Arecont Cameras: One year from date of original retail purchase.
6. FMC series fiber-optic media converters and associated accessories: Lifetime warranty.
7. For PTZ cameras, "Normal Use" excludes prolonged use of lens and pan-and-tilt motors, gear heads, and gears due to continuous use of "autopan" or "tour" modes of operation. Such continuous operation is outside the scope of this warranty.
8. Any product sold as "special" or not listed in Vicon's commercial price list: One year from date of original retail purchase.

Date of retail purchase is the date original end-user takes possession of the equipment, or, at the sole discretion of the Company, the date the equipment first becomes operational by the original end-user.

The sole remedy under this Warranty is that defective equipment be repaired or (at the Company's option) replaced, at Company repair centers, provided the equipment has been authorized for return by the Company, and the return shipment is prepaid in accordance with policy.

The Company will not be obligated to repair or replace equipment showing abuse or damage, or to parts which in the judgment of the Company are not defective, or any equipment which may have been tampered with, altered, misused, or been subject to unauthorized repair.

**Software supplied either separately or in hardware is furnished on an "As Is" basis. Vicon does not warrant that such software shall be error (bug) free. Software support via telephone, if provided at no cost, may be discontinued at any time without notice at Vicon's sole discretion. Vicon reserves the right to make changes to its software in any of its products at any time and without notice.**

**This Warranty is in lieu of all other conditions and warranties express or implied as to the Goods, including any warranty of merchantability or fitness and the remedy specified in this Warranty is in lieu of all other remedies available to the Purchaser.**

No one is authorized to assume any liability on behalf of the Company, or impose any obligations on it in connection with the sale of any Goods, other than that which is specified above. In no event will the Company be liable for indirect, special, incidental, consequential, or other damages, whether arising from interrupted equipment operation, loss of data, replacement of equipment or software, costs or repairs undertaken by the Purchaser, or other causes.

This warranty applies to all sales made by the Company or its dealers and shall be governed by the laws of New York State without regard to its conflict of laws principles. This Warranty shall be enforceable against the Company only in the courts located in the State of New York.

The form of this Warranty is effective May 4, 2012.

**THE TERMS OF THIS WARRANTY APPLY ONLY TO SALES MADE WHILE THIS WARRANTY IS IN EFFECT. THIS WARRANTY SHALL BE OF NO EFFECT IF AT THE TIME OF SALE A DIFFERENT WARRANTY IS POSTED ON THE COMPANY'S WEBSITE, [WWW.VICON-SECURITY.COM](http://WWW.VICON-SECURITY.COM). IN THAT EVENT, THE TERMS OF THE POSTED WARRANTY SHALL APPLY EXCLUSIVELY.**

## **Vicon Industries Inc.**

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